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10/569,946	07/31/2006	Peter Samuel Atherton	1034413-000013	3125

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EXAMINER	
TANG, SON M	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/569,946	ATHERTON, PETER SAMUEL	
	Examiner	Art Unit	
	SON M. TANG	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-10,12-18 and 48-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-10,12-18 and 48-73* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, **2-10, 12-18, 48-60 and 72-73** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Atherton** [W0 01/71848], which correspondences of US patent 6,888,509. in view of **Beigel** [US 6,181,287].

Regarding claims 1, 3, 12: Atherton discloses an RFID tag [Fig. 10B], comprising:
a substrate (1001) having a top surface and a bottom surface;
an RFID integrated circuit (1002) disposed on the top surface of the substrate;
a first electrically conductive region (1003) associated with the top surface of
the substrate and electrically coupled to the RFID integrated circuit;
a second electrically conductive region (met by tamper track 1005) associated with the bottom surface of the substrate and electrically coupled to the first conductive region, the first and second conductive regions forming an RFID antenna; the RFID integrated circuit, first conductive region and second conductive region together providing an RFID function;
an attachment layer (1006) associated with the bottom surface of the substrate for attaching the tag to a receiving_surface; and an adhesion modifying layer (1008) modifying adhesion of the second conductive region [e.g. greater or less, absent or present adhesive in a particular region as cited at page 4, 2nd paragraph] such that the second conductive region is disrupted if the tag is

tampered or removed from the receiving_surface [as shown in Figs. 10A-10C of US 6,888,509 and page 8 of description]. **Atherton** does not specifically mention that the conductive regions are electrically connected via non-contact coupling.

The non-contacting coupling antenna is known in RFID art, **Beigel** teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 4: Atherton discloses, wherein the first conductive region is directly coupled to the RFID integrated circuit [cited page 8, paragraph 4].

Regarding claims 5-6: Atherton discloses wherein the first adhesion modifying layer [1008] is arranged between the bottom surface of the substrate and the electrically conductive region or arranged between the electrically conductive region and the attachment layer [cited @ page 4, paragraph 1].

Regarding claim 7: Atherton discloses, wherein the attachment layer [1006] is a layer of adhesive [page 8, paragraph 3].

Regarding claim 8: Atherton discloses, further comprising an overlayer [1007] formed over the first conductive region and the RFID integrated circuit.

Regarding claim 9: Atherton discloses, further comprising printed graphics applied to the tag [page 8, paragraph 4].

Regarding claim 10: Atherton discloses an RFID tag [Fig. 10B], comprising:

a substrate [1001] having a top surface and a bottom surface;

an RFID integrated circuit [1002] disposed on the top surface of the substrate; a first electrically conductive region [1003] disposed on the top surface of the substrate and electrically coupled to the RFID integrated circuit, the first conductive region forming an RFID antenna;

a second electrically conductive region [met by tamper track 1005] disposed on the bottom surface of the substrate and electrically coupled to the RFID integrated circuit, the RFID integrated circuit adapted to detect at least one electrical property of the second conductive region [cited at page 9 1st paragraph];

an attachment layer [1006] for attaching the tag to a receiving surface, the attachment layer being associated with the bottom of the substrate; and

an adhesion modifying layer [1008] modifying adhesion of the second conductive region [1005] such that the second conductive region is disrupted if the tag is tampered or removed from the receiving surface, thereby modifying the at least one electrical property of the second conductive region detected by the RFID integrated circuit [as shown in Figs. 10A-10C of US 6,888,509 and page 8, of WIPO description]. **Atherton** does not specifically mention that the conductive regions are electrically connected via non-contact coupling.

The non-contacting coupling antenna is known in RFID art, **Beigel** teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would

found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 13: Atherton discloses, wherein the second conductive region is arranged around a perimeter of the bottom surface of the substrate [cited @ page 8, paragraph 6].

Regarding claim 14: Atherton discloses, wherein the RFID integrated circuit is adapted to record information representing the at least one electrical property of the second conductive region [cited @ page 9 paragraph 1].

Regarding claim 15: Atherton discloses, further comprising a power source within the tag and coupled to the RFID integrated circuit (inherently included in an active tag, as cited @ last paragraph of page 8).

Regarding claims 16-17: Atherton discloses, further comprising at least one coupling circuit [met by the through connect points 1004] directly connected to the RFID integrated circuit for electrically coupling the RFID integrated circuit to the second conductive region.

Regarding claim 18: Atherton discloses, wherein the at least one electrical property is an electrical impedance value of the second conductive region [as cited @ page 8, paragraph 6].

Regarding claim 48: Atherton discloses, An RFID tag [Fig. 5], comprising:
a substrate [101] having a top surface and a bottom surface;

an electrically conductive region [102] disposed on the bottom surface of the substrate, the conductive region forming an RFID antenna;

an attachment layer [103] for attaching the tag to a receiving surface, the attachment layer being associated with the bottom surface of the substrate;

an RFID integrated circuit disposed on the top surface of the substrate and electrically coupled to

the electrically conductive region; and

a first adhesion modifying layer [105] modifying the adhesion of the electrically conductive region so as to provide areas of different adhesion strength [cited at page 9 1st paragraph] such that the electrically conductive region is disrupted if the tag is tampered or removed from the receiving surface [see Fig. 5A-5B, page 5, paragraphs 11-13]. **Atherton** does not specifically mention that the conductive regions are electrically connected via non-contact coupling.

The non-contacting coupling antenna is known in RFID art, **Beigel** teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 49: Atherton further discloses at another embodiment of [Fig. 7C] which RFID tag comprises a first adhesion modifying layer (701) and a second adhesion modifying layer (105) modifying the adhesion of the RFID integrated circuit (402) such that the RFID integrated circuit is modified if the RFID circuit is removed from the substrate [cited @ page 6, paragraph 3].

Regarding claims 50-51: Atherton discloses wherein the first adhesion modifying layer [105] is arranged between the bottom surface of the substrate and the electrically conductive region or arranged between the electrically conductive region and the attachment layer [cited @ page 4, paragraph 1].

Regarding claim 52: Atherton discloses, An RFID tag [Fig. 10], comprising:

a substrate [1001]having a top surface and a bottom surface;

an RFID integrated circuit [1002] disposed on the top surface of the substrate;

a first electrically conductive region [1003] associated with the top surface of

the substrate and electrically coupled to the RFID integrated circuit, the first conductive region forming an RFID antenna;

a second electrically conductive region [met by tamper track 1008] associated with the bottom surface of the substrate and electrically coupled to the RFID circuit;

an attachment layer [1006] associated with the bottom surface of the substrate for attaching the tag to a receiving surface; and

a first adhesion modifying layer [1008] modifying the adhesion of the second conductive region such that the second conductive region is disrupted if the tag is tampered or removed from the receiving surface [as shown in Figs. 10A-10C of US 6,888,509 and page 8, of WIPO description]. **Atherton** does not specifically show that the first and second electrically conductive regions are coupled to the RFID circuit via non-contact coupling.

Beigel teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 53: Atherton further discloses at another embodiment of [Fig. 7C] which RFID tag comprises a first adhesion modifying layer (701) and a second adhesion modifying layer (105) modifying the adhesion of the RFID integrated circuit (402) such that the RFID integrated circuit is modified if the RFID circuit is removed from the substrate [cited @ page 6, paragraph 3].

Regarding claims 54-55: Atherton discloses, wherein the first adhesion modifying layer is arranged between the bottom of the substrate and the second conductive region or second region and the attachment layer [cited @ page 4, paragraph 1].

Regarding claims 56-57: The claimed limitations are interpreted and rejected as claims **7-8** above.

Regarding claim 58: Atherton discloses an RFID tag [Fig. 10], comprising:
a substrate (1001) having a top surface and a bottom surface;
an electrically conductive region (tamper track 1005) disposed on the bottom surface of the substrate, the conductive region forming an RFID antenna;
an attachment layer (1006) for attaching the tag to a receiving surface, the attachment layer being associated with the bottom surface of the substrate; an RFID integrated circuit (1004) disposed on the top surface of the substrate and electrically coupled to the electrically conductive region, the RFID integrated circuit including a memory; an RF read/write device communicating with the memory of the RFID integrated circuit; and
a first adhesion modifying layer (1008) modifying adhesion of the electrically conductive region such that the electrically conductive region is disrupted if the tag is tampered or removed from the receiving surface, wherein the RF read/write device writes information into the memory of

the RFID integrated circuit indicating that the electrically conductive region has been disrupted [cited @ page 8, paragraphs 6-8]. **Atherton** does not specifically mention that the conductive regions are electrically connected via non-contact coupling.

The non-contacting coupling antenna is known in RFID art, **Beigel** teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 59: wherein the information written into the RFID integrated circuit is locked so that the information cannot be subsequently be modified [page 8, ¶ 8].

Regarding claim 60: wherein the information written into the RFID integrated circuit is a permanent record that the conductive region has been disrupted [page 8, ¶ 8].

Regarding claim 72: Atherton discloses an RFID tag [Fig. 10], comprising:

a substrate (1001) having a top surface and a bottom surface;

an electrically conductive region (tamper track 1005) disposed on the bottom surface of the substrate, the conductive region forming an RFID antenna;

an attachment layer (1006) for attaching the tag to a receiving surface, the attachment layer being associated with the bottom surface of the substrate; an RFID integrated circuit (1004) disposed on the top surface of the substrate and electrically coupled to the electrically conductive region,

a first adhesion modifying layer (1008) modifying adhesion of the electrically conductive region

such that the electrically conductive region is disrupted if the tag is tampered or removed from the receiving surface, thereby modifying the at least one electrical property of the electrically conductive region detected by the RFID integrated circuit [cited @ page 8, paragraphs 6-8]. **Atherton** does not specifically show that the RFID integrated circuit disposed at the bottom surface of the first substrate and the electrically conductive region disposed on the bottom surface of an additional second larger substrate and the conductive regions are electrically coupled to the RFID integrated circuit via non-contact coupling.

Beigel teaches an RFID tag comprises, a first substrate (70), chip (10) disposed on the bottom surface of first substrate (70), a second substrate (76), whereby the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which means it is not physically contacting with the antenna [see Figs. 1-4 and 7 col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Although, Atherton and Beigel are not specifically show that the second substrate have a surface larger than the first substrate. As long as, the RFID tag has the same arrangement, larger substrate would not affect the function of the tag. Therefore, it would have been obvious matter of design choice to have any size of second substrate in the tag, since applicant has not claimed that larger substrate solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with or without it.

Regarding to claim 73: As described in claim 1 above, **Beigel** taught a capacitive

coupling of the IC to the antenna, which constitutes a coupling circuit that facilitates electrical non-contact coupling of the IC with the antenna.

3. Claims **61-71** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Atherton** in view of **Beigel** and further in view of **Carr et al.** [US 6,859,745].

Regarding claim 61: **Atherton** discloses that the chip (1002) can be programmed to modify its own memory contents to indicate that tamper, in which the content is not altered back to the original state [page 9, ¶ 1], except for not specifically show that how the initial value (state) is being written into RFID tag's memory.

Carr et al. teaches an RFID tag (16) comprises a tamper detection device which stores initial value (state) into the memory at the time of initial capping and the sensor is activated, which the values being stored every time the package has been opened (tampered) [see col. 8, lines 7-30], which constitutes of storing initial value and subsequence values for determining tampered/opened. It would have been obvious of one having ordinary skill in the art at the time the invention was made to employ the concept of recording initial value/state for determining the changed as suggested by Carr et al., for the purpose of optimizing the state change determination.

Regarding claim 62: wherein the initial value of the at least one electrical property is locked in the memory of the RFID integrated circuit to avoid modification [cited @ page 3, ¶ 13, and page 9, ¶ 1].

Regarding claim 63: Atherton discloses an RFID tag [Fig. 10], comprising:
a substrate (1001) having a top surface and a bottom surface;
an electrically conductive region (1005) disposed on the bottom surface of the substrate, the

conductive region forming an RFID antenna;

an attachment layer (1006) for attaching the tag to a receiving surface, the attachment layer being associated with the bottom surface of the substrate;

an RFID integrated circuit disposed on the top surface of the substrate and electrically coupled to the electrically conductive region, the RFID integrated circuit including a memory; and

an RF read/write device communicating with the memory of the RFID integrated circuit [cited @ page 9, ¶ 1], except for not specifically show that the initial value (state) is being written into RFID tag's memory then compare with subsequences detected values (states).

Carr et al. teaches an RFID tag (16) comprises a tamper detection device which stores initial value (state) into the memory at the time of initial capping and the sensor is activated, then stores subsequences values and times of every time the package has been opened (tampered) [see col. 8, lines 7-30], which constitutes of storing initial value and subsequence values for determining tampered/opened. It would have been obvious of one having ordinary skill in the art at the time the invention was made, to employ the concept of recording initial value/state as a baseline value for determining the changed of the tag as suggested by Carr et al., for the benefit of optimizing the changed state determination. **Atherton** does not specifically mention that the conductive regions are electrically connected via non-contact coupling.

The non-contacting coupling antenna is known in RFID art, **Beigel** teaches an RFID tag comprising a non-contacting coupling antenna, wherein the antenna (14) is positioned at opposite surface of the IC circuit chip (10) and the IC circuit chip (10) connected with the antenna (14) via the capacitive coupling (19), which is not physically contacting with the antenna [see Figs. 1-4, col. 2, lines 29-53 and col. 3, lines 4-8]. In that, one having ordinary skill in the art would

found it obvious to implement the non-contact coupling antenna technology as suggested by Beigel, with the RFID tag of Atherton, for the benefit of enhancing the sensitivity of the tamper.

Regarding claim 64: Atherton disclose all the limitations as described above, except for not specifically show that, wherein if the subsequent value matches with the initial value, it is determined that the RFID integrated circuit is electrically coupled to a particular type of electrically conductive region. As long as, there is no changed in any of tamper determination in the tag, the RFID tag is normally operated. It would have been obvious of one having ordinary skill in the art to recognize that, when the subsequence measured value is same as the initial/reference value, there is no change in tamper determination thereof, which means that the RFID tag is operated normally (e.g. electrically coupled to a particular type of electrically conductive region).

Regarding claims 65, 67-69: Atherton further discloses that the initial value of the at least one electrical property of the electrically conductive region (tamper track 1005) is adapted to be deliberately varied before the initial value is written into the memory of the RFID integrated circuit [cited @ page 8, ¶ 6], wherein, the tamper track can be adjusted to provide the correct electrical resistance properties.

Regarding claim 66: Atherton disclosed internal tamper track detection and stores in memory above; Atherton does not specifically mention that the RFID integrated circuit detects an impedance of the electrically conductive region. However, Atherton discloses that the tamper track (1005) is an electrical resistance (impedance) that can be detected by the internal tamper track detection. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that the tamper track detection is capable of detecting electrical resistance (impedance)

of at least one electrical property of the electrically conductive region.

Regarding claim 70: wherein the initial value of the at least one electrical property is deliberately varied by changing a type of material comprising the electrically conductive region [cited @ page 3, ¶ 12].

Regarding claim 71: Atherton discloses that the tamper track (1005) configurable to be run inside, outside or beneath the antenna (1003) [cited @ page 8, ¶ 6]. But does not specifically show the tamper track can be change at an area of a non-contact coupling circuit coupling the electrically conductive region to the RFID integrated circuit. As long as, the tamper track can be deposed at any appropriated area within the RFID tag (e.g. inside, outside or beneath the antenna), in that, the tamper track can be deposed at area of non-contact coupling circuit (capacitive) as known in the art. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that the initial value (tamper track properties impedance) can be varied by changing any appropriate position including, an area of a non-contact coupling circuit (capacitive coupling) to the RFID integrated circuit.

Response to Arguments

4. Applicant's arguments filed 12/22/2010 have been fully considered but they are not persuasive.

Applicant argued: Regarding to all independent claims addressed in the Remark, Applicant found that one skilled in the art would not have looked to Beigel's device to modify Atherton's RFID tamper label, because Atherton used the antenna disruption as an indicator that tampering

has occurred, while Beigel seeks to provide a compact, low cost IC tag and not concerned with using antenna damage as a tamper indicator.

Examiner responsive: Atherton's RFID antenna (1003 and 1005) in the formed of a conductive coupling antenna, coupled via electrical connection (1004), and if it is damaged to any part of the antenna it would render to change the function of the RFID tag. Alternatively, one ordinary skilled artisan would recognize that Atherton's RFID antenna (1003 and 1005) can be modified as a capacitive coupling (i.e. non-contact coupling), and the modified capacitive coupling antenna would have the same result as conductive coupling. Beigel's RFID antenna is a capacitive coupling, although the Beigel's RFID antenna is not design for the same purpose as Atherton's RFID antenna, but it is obvious that any damage (i.e. disruption) to any part of the Beigel's RFID capacitive coupling antenna, the RFID tag would change its function as well. It is obvious that capacitive coupling antenna can be implementing to any RFID antenna, therefore, the concept of Beigel's RFID antenna can be modified into Atherton' RFID antenna, which would render to a result as user intended.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON M. TANG whose telephone number is (571)272-2962. The examiner can normally be reached on 5/8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. M. T./
Examiner, Art Unit 2612

/Daniel Wu/
Supervisory Patent Examiner, Art Unit 2612